

AMENDMENTS TO THE CLAIMS

1. (Original) A foam article comprising a thermoplastic elastomer and having a complete submersion water absorption of less than or equal to $40 \times [(1 - A)/A]$, wherein A= foam density in grams/cubic centimeter,
the foam article being substantially free of a melt strength enhancing additive comprising fluorine.
2. (Original) The foam article of claim 1, wherein the complete submersion water absorption is less than or equal to about $25 \times [(1 - A)/A]$.
3. (Original) The foam article of claim 1, wherein the complete submersion water absorption is less than or equal to about $10 \times [(1 - A)/A]$.
4. (Original) The foam article of claim 1, wherein the complete submersion water absorption is less than or equal to about $5 \times [(1 - A)/A]$.
5. (Original) The foam article of claim 1, wherein the foam density is between about 0.30 grams/cubic centimeter and about 0.70 grams/cubic centimeter.
6. (Original) The foam article of claim 5, wherein the complete submersion water absorption is less than about 35 percent.
7. (Original) The foam article of claim 5, wherein the complete submersion water absorption is less than about 5 percent.
8. (Original) The foam article of claim 1, wherein the foam density is between about 0.35 grams/cubic centimeter and about 0.60 grams/cubic centimeter.

9. (Original) The foam article of claim 8, wherein the complete submersion water absorption is less than about 35 percent.
10. (Original) The foam article of claim 8, wherein the complete submersion water absorption is less than about 5 percent.
11. (Original) The foam article of claim 1, wherein the foam density is between about 0.40 grams/cubic centimeter and about 0.50 grams/cubic centimeter.
12. (Original) The foam article of claim 11, wherein the complete submersion water absorption is less than about 35 percent.
13. (Original) The foam article of claim 12, wherein the complete submersion water absorption is less than about 5 percent.
14. (Original) The foam article of claim 1, wherein the foam article is a microcellular material.
15. (Original) The foam article of claim 1, wherein the foam article has an average cell size less than about 100 microns.
16. (Original) The foam article of claim 1, wherein the foam article has an average cell size less than about 80 microns.
17. (Original) The foam article of claim 1, wherein the thermoplastic elastomer is a thermoplastic vulcanizate.
18. (Original) The foam article of claim 1, wherein the foam article is essentially free of residual chemical blowing agents or by-product of chemical blowing agent.

19. (Original) The foam article of claim 1, wherein the foam article is a gasket, a seal or a weatherstrip.

20. (Original) The foam article of claim 1, wherein the foam article is free of an auxiliary layer formed on a surface of the foam article that limits water absorption.

21. (Original) The foam article of claim 20, wherein the foam article is free of a co-extruded coating layer formed on a surface of the foam article that limits water absorption.

22. (Original) The foam article of claim 20, wherein the foam article is free of a hydrophobic coating

layer formed on a surface of the foam article that limits water absorption.

23. (Original) The article of claim 1, wherein the foam article is substantially free of an acrylic modified PTFE.

24. (Original) The article of claim 1, wherein the foam article has a U-test water absorption of less than or equal to 0.5%.

25. (Original) A foam article comprising a thermoplastic elastomer and having a complete submersion water absorption of less than or equal to $40 \times [(1 - A)/A]$, wherein A= foam density in grams/cubic centimeter, the thermoplastic elastomer including a thermoplastic phase comprising a first polymer type,

the foam article being substantially free of a melt strength enhancing additive having a different polymer type than the first polymer type.

26. (Original) The foam article of claim 25, wherein the complete submersion water absorption is less than or equal to about $25 \times [(1 - A)/A]$.

27. (Original) The foam article of claim 25, wherein the complete submersion water absorption is less than or equal to about $10 \times [(1 - A)/A]$.

28. (Original) The foam article of claim 25, wherein the complete submersion water absorption is less than or equal to about $5 \times [(1 - A)/A]$.

29. (Original) The foam article of claim 25, wherein the foam density is between about 0.30 grams/cubic centimeter and about 0.70 grams/cubic centimeter.

30. (Original) The foam article of claim 29, wherein the complete submersion water absorption is less than about 35 percent.

31. (Original) The foam article of claim 29, wherein the complete submersion water absorption is less than about 5 percent.

32. (Original) The foam article of claim 25, wherein the foam density is between about 0.40 grams/cubic centimeter and about 0.50 grams/cubic centimeter.

33. (Original) The foam article of claim 25, wherein the foam article is a microcellular material.

34. (Original) The foam article of claim 25, wherein the foam article has an average cell size less than about 100 microns.

35. (Original) The foam article of claim 25, wherein the foam article has an average cell size less than about 80 microns.

36. (Original) The foam article of claim 25, wherein the thermoplastic elastomer is a thermoplastic vulcanizate.

37. (Original) The foam article of claim 25, wherein the foam article is free of an auxiliary layer formed on a surface of the foam article that limits water absorption.

38. (Original) The foam article of claim 37, wherein the foam article is free of a co-extruded coating layer formed on a surface of the foam article that limits water absorption.

39. (Original) The foam article of claim 37, wherein the foam article is free of a hydrophobic coating

layer formed on a surface of the foam article that limits water absorption.

40. (Original) The foam article of claim 25, wherein the foam article has a U-test water absorption of less than or equal to 0.5%.

41. (Original) A foam article comprising a thermoplastic elastomer and having a complete submersion water absorption of less than or equal to $40 \times [(1 - A)/A]$, wherein A= foam density in grams/cubic centimeter,

the foam article being substantially free of a melt strength enhancing additive comprising fluorine and being free of an auxiliary layer formed on a surface of the foam article that limits water absorption.

42. (Original) The foam article of claim 41, wherein the foam article is free of a co-extruded coating layer formed on a surface of the foam article that limits water absorption.

43. (Original) The foam article of claim 41, wherein the foam article is free of a hydrophobic coating

layer formed on a surface of the foam article that limits water absorption.

44. (Original) The foam article of claim 41, wherein the complete submersion water absorption is less than or equal to about $25 \times [(1 - A)/A]$.

45. (Original) The foam article of claim 41, wherein the complete submersion water absorption is less than or equal to about $5 \times [(1 - A)/A]$.

46. (Original) The foam article of claim 41, wherein the foam density is between about 0.30 grams/cubic centimeter and about 0.70 grams/cubic centimeter.

47. (Original) The foam article of claim 46, wherein the complete submersion water absorption is less than about 35 percent.

48. (Original) The foam article of claim 46, wherein the complete submersion water absorption is less than about 5 percent.

49. (Original) The foam article of claim 41, wherein the foam article has a U-test water absorption of less than or equal to 0.5%.

50. (Original) A foam article comprising a thermoplastic elastomer and having a complete submersion water absorption of less than or equal to $40 \times [(1 - A)/A]$, wherein A= foam density in grams/cubic centimeter, the thermoplastic elastomer including a thermoplastic phase comprising a first polymer type,

the foam article being substantially free of a melt strength enhancing additive comprising a different polymer type than the first polymer type and being free of an auxiliary layer formed on a surface of the foam article that limits water absorption.

51. (Original) The foam article of claim 50, wherein the foam article is free of a co-extruded coating layer formed on a surface of the foam article that limits water absorption.

52. (Original) The foam article of claim 50, wherein the foam article is free of a hydrophobic coating layer formed on a surface of the foam article that limits water absorption.

53. (Original) The foam article of claim 50, wherein the complete submersion water absorption is less than or equal to about $25 \times [(1 - A)/A]$.

54. (Original) The foam article of claim 50, wherein the complete submersion water absorption is less than or equal to about $5 \times [(1 - A)/A]$.

55. (Original) The foam article of claim 50, wherein the foam density is between about 0.30 grams/cubic centimeter and about 0.70 grams/cubic centimeter.

56. (Original) The foam article of claim 55, wherein the complete submersion water absorption is less than about 35 percent.

57. (Original) The foam article of claim 55, wherein the complete submersion water absorption is less than about 5 percent.

58. (Original) The foam article of claim 50, wherein the foam article has a U-test water absorption of less than or equal to 0.5%.

59-75. (Cancelled)

76. (Original) A foam article comprising a thermoplastic elastomer and having a U-test water absorption of less than or equal to 0.5%, the foam article being substantially free of a melt strength enhancing additive comprising fluorine and being free of an auxiliary layer formed on a surface of the foam article that limits water absorption.

77. (Original) The foam article of claim 76, wherein the U-test water absorption is less than or equal to 0.3%.

78. (Original) The foam article of claim 76, wherein the U-test water absorption is less than or equal to 0.1%.

79. (Original) The foam article of claim 76, wherein the U-test water absorption is less than or equal to 0.05%.

80. (Original) The foam article of claim 76, wherein the foam article has an average cell size less than about 100 microns.

81. (Original) The foam article of claim 76, wherein the foam article has an average cell size less than about 80 microns.

82. (Original) The foam article of claim 76, wherein the thermoplastic elastomer is a thermoplastic vulcanizate.

83. (Original) The foam article of claim 82, wherein the thermoplastic vulcanizate comprises polypropylene and fully cross-linked EPDM.

84. (Original) The foam article of claim 76, wherein the foam article is essentially free of residual chemical blowing agents or by-product of chemical blowing agent.

85. (Original) The foam article of claim 76, wherein the foam article is a gasket, a seal or a weatherstrip.

86. (Original) The foam article of claim 76, wherein the foam article is free of a co-extruded coating layer formed on a surface of the foam article that limits water absorption.

87. (Original) The foam article of claim 76, wherein the foam article is free of a hydrophobic coating

layer formed on a surface of the foam article that limits water absorption.

88. (Original) The foam article of claim 76, wherein the foam article is substantially free of an acrylic modified PTFE.

89. (Original) The foam article of claim 76, wherein the thermoplastic elastomer has a durometer of less than 60 Shore A.

90. (Original) The foam article of claim 76, wherein the thermoplastic elastomer has a durometer of less than 45 Shore A.

91. (Original) The foam article of claim 76, wherein the foam article has a complete submersion water absorption of less than or equal to $40 \times [(1 - A)/A]$, wherein A= foam density in grams/cubic centimeter.

92. (Original) A foam article comprising a thermoplastic elastomer having a U-test water absorption of less than or equal to 0.5%, the thermoplastic elastomer including a thermoplastic phase comprising a first polymer type,

the foam article being substantially free of a melt strength enhancing additive comprising a different polymer type than the first polymer type and being free of an auxiliary layer formed on a surface of the foam article that limits water absorption.

93. (Original) The foam article of claim 92, wherein the U-test water absorption is less than or equal to 0.3%.

94. (Original) The foam article of claim 92, wherein the U-test water absorption is less than or equal to 0.1%.

95. (Original) The foam article of claim 92, wherein the U-test water absorption is less than or equal to 0.05%.

96. (Original) The foam article of claim 92, wherein the foam article has an average cell size less than about 100 microns.

97. (Original) The foam article of claim 92, wherein the foam article has an average cell size less than about 80 microns.

98. (Original) The foam article of claim 92, wherein the thermoplastic elastomer is a thermoplastic vulcanizate.

99. (Original) The foam article of claim 98, wherein the thermoplastic vulcanizate comprises polypropylene and fully cross-linked EPDM.

100. (Original) The foam article of claim 92, wherein the foam article is essentially free of residual chemical blowing agents or by-product of chemical blowing agent.

101. (Original) The foam article of claim 92, wherein the foam article is a gasket, a seal or a weatherstrip.

102. (Original) The foam article of claim 92, wherein the foam article is free of a co-extruded coating layer formed on a surface of the foam article that limits water absorption.

103. (Original) The foam article of claim 92, wherein the foam article is free of a hydrophobic coating layer formed on a surface of the foam article that limits water absorption.

104. (Original) The foam article of claim 92, wherein the thermoplastic elastomer has a durometer of less than 60 Shore A.

105. (Original) The foam article of claim 92, wherein the thermoplastic elastomer has a durometer of less than 45 Shore A.

106. (Original) The foam article of claim 92, wherein the foam article has a complete submersion water absorption of less than or equal to $40 \times [(1 - A)/A]$, wherein A= foam density in grams/cubic centimeter.

107-109. (Cancelled)